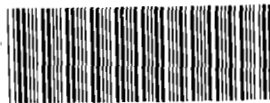


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## INFORMAL MEMORANDUM

DRAFT

DATE: April 21, 1995

TO: Peg Witherill

FROM: Paul Pigeon

 CC: John Rampe  
 Dale Stewart  
 Paul Singh  
 Judith Stewart

Post-It* Fax Note	7871	Date	4-21	# of pages	3
To	Laurie Peterson-Wright	From	Paul Pigeon		
Co./Dept.		Co.			
Phone #		Phone #	5211		
Fax #	8663	Fax #	2048		

SUBJECT: Comments on EG&amp;G's "Proposed Closure Strategy for Operable Unit No. 7", Draft Report, April 13, 1995

In general, this document provides good coverage of the conceptual plan for the OU 7 IM/IRA/EA. The strategy for what constitutes the source area presumptive remedy vs. non-source area media remedies is presented well. The document addresses what measures will be taken and what media do not require an active remedy. However, I have specific comments on weaknesses in the presentation, which are listed below in text page order.

1. Page 2 - In the first sentence of the first full paragraph, do we need to add a discussion of the EA requirements, which I do not think are actually addressed by the IAG as being part of the IM/IRA Decision Document requirements?
2. Page 2 - The discussion of the submittal schedule in the first full paragraph should also reference the public involvement activity that tracks with IM/IRA development and approval. We understand that the OU 4 IM/IRA for Solar Ponds closure may be subjected to multiple, duplicative public involvement activities related to the closure plan requirement of RCRA. A single public involvement program should be proposed that would address the IM/IRA/EA and any related RCRA closure or permitting action that CDPHE thinks is necessary and RFFO agrees to. EG&G OU 7 Project Manager should confer with the OU 4 counterpart on this experience.
3. Page 2 - "Presumptive Remedy Components" list and several places in Section 2.1 (pp. 8-11). The "single-barrier cover" conceptual remedy should be presented as "RCRA Subtitle C equivalent cover" in each instance where it is discussed.
4. Figure 1 and 2 and Section 1.3, pp. 3-7 - The methodology presented in Figure 1 appears correct with the exception of the definition of "disposal". I understand that Judith Stewart is providing comments on this point. I have a conceptual problem with this section being presented as a methodology for determining if only treatment is required. It seems that the main use for the methodology in the remainder of this document is for determinations of whether or not remedial action is needed, whether it be treatment, containment or removal. The need for treatment, per se, would be assessed if remediation were determined to be necessary and if the remedy chosen involves active management of the waste or contaminated media (removal, pumping, piping, discharge or disposal, etc.). Further, the need for treatment would then depend upon the levels of contamination vs. ARARs, which would include RCRA Land Disposal Restriction standards. The LDRs are not mentioned in this section. Would

ADMIN RECCRD

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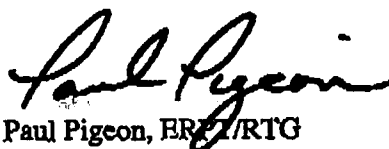
Figure 2 still be a correct presentation if "treatment" were replaced with "remediation" in the boxes just downflow of the decision boxes?

5. Page 8 - In the second paragraph of Section 2.1.1, RCRA terminology should not be used in reference to leachate that was generated and being managed during the 1970s.
6. Page 11 - In Section 2.1.3, the initial reference to the cover system being proposed is to a "RCRA Subtitle C composite cover" and the discussion then switches to a "single barrier cover" that "will meet the RCRA requirement". This needs to be presented better as it is central to our strategy for the landfill proper. We should not say that the composite cover "is recommended", but that a "RCRA Subtitle C cover is an applicable ARAR" in view of the disposal of hazardous wastes in the landfill. Then, we need to explain the equivalent protectiveness of the single barrier cover to make a logical progression to the second paragraph of Section 2.1.3.
7. Page 11, last paragraph of Section 2.1.3. Given the large, costly slurry wall that is being proposed as an accelerated action, is well abandonment in 1995 still part of the strategy? Also, we should reference retaining a few wells for slurry wall monitoring prior to closure, per Section 2.6.3.
8. Page 11 - In Section 2.1.4, cover maintenance should be discussed, including maintaining surface contours and vegetation, and inspecting and repairing the liner, if necessary, in areas of cover subsidence.
9. Page 17 - Last sentence of Section 2.4.2 is too indefinite about air permitting for hazardous air pollutants (HAPs). Either the need for permitting should be pinned down or the means to establishing the need should be described through sampling prior to closure or by collecting operating information once the cover is placed.
10. Page 22 - The last sentence of the first paragraph of Section 2.5.3 should be made more specific as to how the exposure pathway for F039 in ground water will be incomplete. It is not only that the seep discharge point will be covered, but that XX % of the source water for leachate generation will be eliminated (90%?, 99%?, 99.9%?).
11. Page 22 - Per comment 4 above, the significance of delisting the F039 contained in ground water must be succinctly and completely presented. Either here or in Section 1.3, the use of the CERCLA delisting process instead of the "CDPHE conservative screen" for delisting should be explained and the significance of a delisting in terms of the need for either treatment or remediation in general carefully laid out.
12. Page 31 - First sentence of Section 3.2.1: see comment 5.
13. Page 34 - In Section 3.3.2, for the contaminants that exceed PRGs, we should point out their average and UCLs concentrations, the extent of exceedances by maximum values, and, in the case of radium-226, a comparison with the upper limit of background.
14. Page 34 - A general question on how we present our downgradient ground water strategy -- Although we have said that the point of compliance will be established in the CAD/ROD, should we not discuss where in the ground water system we

already see full ARARs compliance so that a point of compliance can be established for the no action scenario. If this point is just downgradient of the East Landfill Pond dam, it would help CDPHE get comfortable with no action.

15. Page 36 - The proposal for "containment of the OU 6 IHSSs as part of landfill closure" should be tightened up to reference only 166.1 and state what type of containment is intended.
16. Page 37 - The blanks in Table 3 for Carbon Tetrachloride (downgradient), Carbonate as  $\text{CaCO}_3$  (vicinity of pond), etc. should be explained in a footnote.
17. Page 38 - In last sentence, paragraph 2 of Section 4. Conclusion, the same comment as Comment 10 above applies.
18. Page 38 - In the last paragraph, the statement that no action is being taken on downgradient ground water is incorrect in that an action is being taken to contain the suspected source of the primary contaminant that causes a slightly elevated non-carcinogenic risk - selenium.

Copies of the text, figures and tables on which I have comments are attached. I will plan to meet with you and EG&G to review the strategy and these comments on Monday, April 24 at 9 am.

  
Paul Pigeon, ERG/RTG

# REVIEW COMMENT SHEET

Time Spent on Review: \_\_\_\_\_ hrs.

If questions on content, please call the SME:

Return to:

FAX \_\_\_\_\_ Name \_\_\_\_\_ Ext. \_\_\_\_\_ Location \_\_\_\_\_ Name \_\_\_\_\_ Ext. \_\_\_\_\_ Paul Pigeon X5611 \_\_\_\_\_ Title \_\_\_\_\_ Proposed Closure Strategy for OU7, Draft Report, April 13, 1995  
 \_\_\_\_\_ of \_\_\_\_\_

Please review the attached procedure:				Disposition	
Comment Due Date: _____				Disposition Accepted INT/DATE	
<input type="checkbox"/> Internal Review <input type="checkbox"/> Parallel Review <input type="checkbox"/> Verification <input type="checkbox"/> Validation <input type="checkbox"/> Revalidation General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance. 1-A03-PPG-004 provides complete definitions of General and Mandatory comments.				DISPOSITION	
TYPE G or M	PAGE	SECTION OR LINE #	COMMENT		
	2		In the first sentence of the first full para., do we need to add a discussion of the EA requirements, which I do not think are actually addressed by the IAG as being part of the IM/IRA Decision Document requirements?		
	2		The discussion of the submittal schedule in the first full para should also reference the public involvement activity that tracks with IM/IRA development and approval. We understand that the OU4 IM/IRA for Solar Ponds closure may be subjected to multiple, duplicative public involvement activities related to the closure plan requirement of RCRA. A single public involvement program should be proposed that would address the IM/IRA/EA and any related RCRA closure or permitting action that CDPHE thinks is necessary and RFFO agrees to. EG&G OU7 Project Manager should confer with the OU4 counterpart on this experience.		
	2		"Presumptive Remedy Components" list and several places in Section 2.1 (pp. 8-11). The "single-barrier cover" conceptual remedy should be presented as "RCRA Subtitle C equivalent cover" in each instance where it is discussed.		
	Fig. 1 & 2 pp. 3-7	Sec 1.3	The methodology presented in Figure 1 appears correct with the exception of the definition of "disposal". I understand that Judith Stewart is providing comments on this point. I have a conceptual problem with this section being presented as a methodology for determining if only treatment is required. It seems that the main use for the methodology in the remainder of this document is for determinations of whether or not remedial action is needed, whether it be treatment, containment or removal. The need for treatment, per se, would be assessed if remediation were determined to be necessary		
POC/Reviewer: (Comments not signed by POC/Reviewer will be considered unofficial and not subject to resolution) <input type="checkbox"/> No Comments <input type="checkbox"/> This procedure revision has no impact or relevance to our discipline or organization and we waive need to concur.				Resolutions Accepted	
Paul Pigeon Name _____ Signature _____ X5611/ /2848 DOE, Proj Mgmt Divi. 4/21/95 Ext./Pager/Fax _____ Bldg/Dept/AGM _____ Date _____				Initials _____ Date _____	

NOTE: These reviews are completed by qualified reviewers in accordance with 1-A03-PPG-004 in concert with 1-A01-PPG-001 and 1-A02-PPG-003.

RF-47947 (5/93)

# REVIEW COMMENT SHEET (continued)

Review comments for document: Proposed Closure Strategy for Operable Unit Seven, Draft Report, April 13, 1995				Rev.	Draft
TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INIT/DATE
			and if the remedy chosen involves active management of the waste or contaminated media (removal, pumping, piping, discharge or disposal, etc.). Further, the need for treatment would then depend upon the levels of contamination vs. ARARs, which would include RCRA Land Disposal Restriction standards. The LDRs are not mentioned in this section. Would Figure 2 still be a correct presentation if "treatment" were replaced with "remediation" in the boxes just downflow of the decision boxes?		
8		2.1.1	RCRA terminology should not be used in reference to leachate that was generated and being managed during the 1970s.		
11		2.1.3	The initial reference to the cover system being proposed is to a "RCRA Subtitle C composite cover" and the discussion then switches to a "single barrier cover" that "will meet the RCRA requirement". This needs to be presented better as it is central to our strategy for the landfill proper. We should not say that the composite cover "is recommended", but that a "RCRA Subtitle C cover is an applicable ARAR" in view of the disposal of hazardous wastes in the landfill. Then, we need to explain the equivalent protectiveness of the single barrier cover to make a logical progression to the second paragraph of Section 2.1.3.		
11		2.1.3	Given the large, costly slurry wall that is being proposed as an accelerated action, is well abandonment in 1995 still part of the strategy? Also, we should reference retaining a few wells for slurry wall monitoring prior to closure, per Section 2.6.3.		
11		2.1.4	Cover maintenance should be discussed, including maintaining surface contours and vegetation, and inspecting and repairing the liner, if necessary, in areas of cover subsidence.		
POC/Reviewer: (Comments not signed by the POC/Reviewer will be considered as unofficial comments)				Resolutions Accepted	
Paul Pigeon Name _____ Signature _____ Date _____				_____ Initials _____ Date _____	

# REVIEW COMMENT SHEET (continued)

Page 3 of 4

Review comments for document: Proposed Closure Strategy for Operable Unit Seven, Draft Report, April 13, 1995						
Number						
Rev.						
Draft						
TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INIT/DATE	
	17	2.4.2	Last sentence of Section 2.4.2. Too indefinite about air permitting for hazardous air pollutants (HAPs). Either the need for permitting should be pinned down or the means to establishing the need should be described through sampling prior to closure or by collecting operating information once the cover is placed.			
	22	2.5.3	Last sentence of first para of Section 2.5.3. Should be made more specific as to how the exposure pathway for FO39 in groundwater will be incomplete. It is not only that the seep discharge point will be covered, but that XX% of the source water for leachate generation will be eliminated (90%?, 99%?, 99.9%).			
	22		Per comment 4 above, the significance of delisting the FO39 contained in groundwater must be succinctly and completely presented. Either here or in Section 1.3, the use of the CERCLA delisting process instead of the "CDPHE" conservative screen" for delisting should be explained and the significance of a delisting in terms of the need for either treatment or remediation in general carefully laid out.			
	31	3.2.1	First sentence of Section 3.2.1: see comment 5.			
	34	3.3.2	For the contaminants that exceed PRGs, we should point out their average and UCL <sub>95</sub> concentrations, the extent of exceedances by maximum values, and, in the case of radium-226, a comparison with the upper limit of background.			
	34		A general question on how we present our downgradient groundwater strategy - Although we have said that the point of compliance will be established in the CAD/ROD, should we not discuss where in the groundwater system we already see full ARARs compliance so that a point of compliance can be established for the no action scenario. If this point is just downgradient of the East Landfill Pond dam, it would help CDPHE get comfortable with no action.			
<b>POC/Reviewer:</b> (Comments not signed by the POC/Reviewer will be considered as unofficial comments)					<b>Resolutions Accepted</b>	
Name: Paul Pigeon					Initials: _____ Date: _____	

# **REVIEW COMMENT SHEET (continued)**

Page 4 of 4

Review comments for document: <u>Proposed Closure Strategy for Operable Unit Seven, Draft Report, April 13, 1995</u>				Rev.	Draft
		Number			
TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INIT/DATE
	36		The proposal for "containment of the OUE IHSSs as part of landfill closure" should be tightened up to reference only 166.1 and state what type of containment is intended.		
	37		The blanks in Table 3 for Carbon Tetrachloride (downgradient), Carbonate as CaCO <sub>3</sub> (vicinity of pond), etc., should be explained in a footnote.		
	38		In the last sentence, paragraph 2 of section 4. Conclusion, the same comment as Comment 10, above, applies.		
	38		In the last paragraph, the statement that no action is being taken on downgradient groundwater is incorrect in that an action is being taken to contain the suspected source of the primary contaminant that causes a slightly elevated non-carcinogenic risk - selenium		
<b>POC/Reviewer:</b> (Comments not signed by the POC/Reviewer will be considered as unofficial comments)				<b>Resolutions Accepted</b>	
Paul Pigeon				Initials _____ Date _____	